The Committee on Energy and Commerce

Internal Memorandum

May 27, 2011

MEMORANDUM

To: Members and Staff, Subcommittee on Communications and Technology

From: Majority Committee Staff

Subject: Hearing on "Promoting Broadband, Jobs and Economic Growth Through Commercial Spectrum Auctions"

The Subcommittee will hold a hearing Wednesday, June 1, 2011, at 10:30 a.m. in 2123 Rayburn. The title of the hearing is "Promoting Broadband, Jobs, and Economic Growth Through Commercial Spectrum Auctions." One panel of witnesses will testify:

1. Christopher Guttman-McCabe, Vice President, Regulatory Affairs, CTIA – The Wireless Association
2. Dr. Michelle Connolly, Associate Professor of the Practice, Department of Economics, Duke University
3. Dean Brenner, Vice President, Government Affairs, Qualcomm Inc.
4. Harold Feld, Legal Director, Public Knowledge
5. Todd F. Schurz, President and CEO, Schurz Communications
6. Bert Ellis, President, Titan Broadcast Management

I. Overview

Spectrum policy will play a critical role in bringing interoperable broadband communications to public safety, in advancing wireless broadband, and in reducing the deficit. A nimble, constructive approach to the next bands of spectrum to be brought to market will meet all three goals. Auctioning spectrum is one of the most efficient and cost-effective ways to advance broadband deployment.

II. The Benefits of Additional Spectrum for Wireless Broadband

American consumers have a rapidly increasing appetite for wireless broadband Internet access. Smartphones now comprise more than one-third of all wireless devices sold every three months. American consumers have downloaded more than 10 billion applications to wireless devices. Cisco reports that the amount of data delivered over wireless networks last year was three times the traffic of the entirety of the Internet in 2000. Given these staggering growth figures, it is no surprise that the FCC's National Broadband Plan and the President of the United States call for an additional 500 MHz of spectrum to be allocated for wireless broadband use in the next five years. As America becomes an increasingly mobile society, access to the Internet while outside the home and workplace will be a critical component of the American economy.

Additional spectrum for wireless broadband will also produce needed jobs in America. The buildout of wireless networks requires workers from a wide range of education and skill levels. Construction and maintenance of wireless networks is a capital-intensive venture. In 2010, wireless companies invested nearly $25 billion to upgrade and expand their wireless networks and have spent more than $310 billion in the last 25 years. Network and service expansion to take advantage of the additional capacity afforded by additional spectrum drive these high levels of investment. From the high-tech design and production of the network, to the building of towers, and installation of equipment, American workers at all levels of the economy are beneficiaries of increased investment in wireless networks. There is also, of course, the less tangible but no less real economic benefits from increased productivity, as well as the creation of entirely new and innovative businesses.

III. Discussion

Any discussion about meeting the spectrum needs of Americans must carefully consider the spectrum bands to be reallocated, the treatment of incumbent users, and the methods of distributing and regulating new licensees.

A. Spectrum

The following bands of spectrum are among those that could be auctioned for additional wireless broadband service:

- *AWS-3*. The AWS-3 band (25 MHz, unpaired) is currently available for auction and has been the subject of considerable debate at the FCC since the original Advanced Wireless Services proceeding in 2006. Among the plans suggested at the FCC are pairing the spectrum with spectrum currently allocated to the Department of Defense in the 1.7 GHz band.
- *700 MHz D Block*. The 700 MHz D Block (10 MHz) has sat fallow at the FCC awaiting Commission action to bring it to market following a failed attempt to auction the spectrum in 2007. The Congressional Budget Office has said the spectrum is worth approximately $3 billion. This is also the spectrum that First Responders wish to reallocate for public safety use.
- *AWS-2 H Block*. The AWS-2 H Block (10 MHz) has long been the subject of interference concerns at the FCC, but it is cleared and ready for non-interfering use.
- *Broadcast Television Spectrum*. Although broadcasters currently have 294 MHz allocated to the service, nowhere in the country are all of the channels in use. The FCC's National Broadband Plan and the President's budget both identified this spectrum as a potential source of additional wireless broadband spectrum (up to 120 MHz potentially available).
- *Mobile Satellite Service*. Some licensees of the Mobile Satellite Service spectrum are reportedly interested in relinquishing their spectrum.

B. Incumbents

Many of the bands of spectrum discussed above currently have active users. An idea that has gained popularity is "incentive auctions." Current licensees, such as broadcasters or satellite companies, would be given the opportunity to voluntarily return some or all of their spectrum in

exchange for compensation. The FCC's National Broadband Plan and the President's proposed FY2012 budget call for an incentive auction of the television broadcast frequencies to clear spectrum for broadband, fund a number of broadband and public safety initiatives, and reduce the deficit. While there is little outright opposition to incentive auctions, concerns remain about how to conduct such auctions equitably. Broadcasters emphasize that incentive auctions should be truly "voluntary." Broadcasters also raise concerns about how licensees wishing to retain their spectrum might be "repacked" after other licensees voluntarily participate in incentive auctions.

Successful auction design in this area could provide more spectrum for wireless broadband, facilitate additional broadcasting innovation, generate funds for deficit reduction, and stimulate the American economy.

IV. Issues

- How does additional spectrum for wireless broadband equate to jobs and investment in the U.S. economy?

- How much revenue can an incentive auction raise for deficit reduction? How much additional spectrum could it make available for broadband?

- What is the best structure for an incentive auction? What safeguards should be a part of the auction to ensure the continued viability of over-the-air broadcasting? What lessons were learned from the DTV transition?

- How are broadcasters using the new capacity that was created by the digital television transition? What new services are broadcasters using to enhance the television experience?

- What regulatory changes could permit broadcasters to make more efficient use of spectrum? To launch new services?

If you need more information, please call Neil Fried or David Redl at 5-2927.